

19. *MACROPYGIA TENUIROSTRIS*, Gray.

Macropygia tenuirostris, Walden, Tr. Z. S. ix. p. 218; Sharpe, Tr. Linn. Soc. new ser. i. p. 347.

Two specimens.

[Luzon (*Meyer*); Basilan (*Steere*); Sooloo (*Burbidge*).]

Lord Tweeddale differs from Professor Schlegel's opinion that the same Philippine species is found in Java and Lombok, where it is *M. emiliana* of Bonaparte; but having compared several specimens lately, I believe that the Professor's view is the right one, and that the bird is found over the Philippines, and occurs even in Borneo. Lord Tweeddale separates the Negros bird as *M. eurycerca*.

20. *GALLUS STRAMINEICOLLIS*, sp. n.

General colour above black, shot with green and purple; wing-coverts like the back, the innermost and the scapulars with a slight subterminal shine of coppery brown; primary-coverts and primaries black, the secondaries externally green; feathers of the lower back and rump straw-yellow, with darker longitudinal centres of black or green; upper tail-coverts and tail glossy oil-green; crown of head and nape black; hind neck and neck-hackles, as well as sides of neck, straw-yellow, deeper on the hind neck, with green longitudinal centres to the feathers; remainder of under surface of body black with a green gloss; comb short and rounded; sides of face and entire throat bare. Total length 34·5 inches, culmen 1·1, wing 9·0, tail 17·5, tarsus 3·4.

Mr. Burbidge procured a single example of this Jungle-fowl, which appears to be a very distinct species. He tells me that it was brought to the ship by one of the Sooloo natives alive, and he cannot vouch for its having been a wild bird. I have, however, shown the bird to Mr. Gould and other ornithologists; and they agree with me that it is probably a distinct species of Jungle-fowl. Governor Ussher also has seen the bird; and he tells me that he has never seen any domesticated Fowls in Borneo or the Eastern Islands which approached this species in the least.

2. A List of the Birds of Labūan Island and its Dependencies. By R. BOWDLER SHARPE, F.L.S., F.Z.S., &c., Senior Assistant, Department of Zoology, British Museum.

[Received March 28, 1879.]

(Plate XXX.)

The materials for a list of Labūan birds have been considerable. First of all there is the little work¹ on the natural history of the

¹ Contributions to the Natural History of Labūan and the adjacent Coasts of Borneo. By James Motley of Labūan, and L. L. Dillwyn. Part 1. 8vo, 1855.

island published in 1855 by Messrs. Motley and Dillwyn, which gives 45 species as the number collected by the former of these gentlemen¹. Secondly, I have examined two large collections sent by the Hon. Hugh Low; and in 1875 I contributed to the 'Proceedings' of this Society a paper on the first of these which had been submitted to me². As in the case of Mr. Motley's collections, an exact record was not kept of the birds which inhabited Labuan as distinct from those which came from the mainland of N.W. Borneo; and it turns out that many of the species recorded by me in the paper above mentioned are not inhabitants of Labuan at all. The second collection sent by Mr. Low was still more extensive, but contained no exact indications of locality excepting in a few rare instances; I was, however, able to obtain some particulars from Mr. Low during his visit to England before his departure for Perak, where he is now the British Resident. Previous to the two consignments here alluded to, Mr. Low had sent several collections to England, all of which were dispersed by his agents on every occasion as from Labuan; and specimens are doing duty in many Museums and private cabinets which ought to be labelled as from Lumbidan or the adjacent parts of North-western Borneo, and not from the island of Labuan.

On being appointed to the governorship of Labuan, my old friend Governor Ussher at once set to work exploring the ornithology of his dominion, and, with his usual zeal, speedily sent a large series of skins to my care at the British Museum. This series embraced collections from several localities, all carefully separated and indorsed, the most complete being that from Labuan itself, where the Governor is a resident, and where he has worked personally and by means of trained collectors, many of the latter being educated to the work by Mr. Low. The present list may therefore be considered perfectly authentic, every specimen being ticketed by Governor Ussher himself. Before turning to the personal notes of the latter gentleman, a great tribute is due to Mr. Low for his last collection from Borneo, which contained a very large series of eggs and nests taken with the parent birds by his trained hunters, and described in this and the paper which I have sent to the 'Ibis' on the birds of Lumbidan.

The following is Governor Ussher's account of his collections:—

"The skins are nearly all in good order, and were chiefly collected by a Kadyan youth of the name of Būak, whom I taught to shoot, having purchased a light gun for him. I am indebted to the Hon. Hugh Low, late Police-magistrate here, and now Resident in Perak, for having instructed several of these boys in skinning birds.

"The island of Labuan is about six miles from Borneo at the nearest point. The colony comprises the undermentioned islands, viz., Labuan, Daat, Karāman, Pappau, Great and Little Rusukan, Burong, Enoe, and one or two nameless islets of diminutive size.

¹ It is probable, however, that some of the birds were from the mainland; and I only refer to those whose existence has been confirmed by the more recent collectors.

² "On a Collection of Birds from Labuan. By R. Bowdler Sharpe," P. Z. S. 1875, pp. 99-111, pl. xxii.

“Labūan itself is about ten miles in extreme length and four in breadth, and contains about 47 square miles. Daat contains probably about seven hundred acres, principally of fine forest; Pappan about sixty acres; Karāman is of about the same size as Daat, the two Rusūkans being each smaller than Pappan, while Burong and Enoe are mere tufts of rock and forest in the sea. All the islands are finely timbered, though the forest on Labūan has been ruthlessly burnt for ‘padi’ planting. Burong Island is composed entirely of limestone—and is rather famous for possessing great numbers of a very venomous and spiteful-looking serpent of a brilliant emerald-green, which is generally found coiled round boughs at a few feet from the ground, and is usually motionless until disturbed. On Labūan and Daat Wild Boar are still to be found; and on Daat alone the interesting *Semnopithecus nasica* exists, which has not been observed on the other islands. Daat is not more than a mile and a half from the coast of Borneo, between it and Labūan; it is probable that Bornean forms may be met with more frequently there than in Labūan, from which it is distant over four miles. Such Deer as Labūan once possessed have been pretty well exterminated. Gulls, Terns, and Waders are certainly not plentiful in these seas, and a new comer is struck by the absence of these graceful birds. At certain seasons Golden Plover, Snipe, and Painted Snipe make their appearance on the swampy low land near the sea. Shells are numerous and handsome; and a systematic course of dredging would produce some fine specimens. The Cones, Volutes, *Harpæ*, *Dolia* and *Cyprææ* are very fine; but those brought for sale are frequently injured by the natives in searching for them, or in making them more attractive to the purchaser.

“Natural history in Borneo owes a large debt to Mr. Low, one of the oldest residents in Labūan, whose name is well known to science. His labours in every department of zoology and botany, as well as his numerous excursions and travels in Borneo, and his intimate acquaintance with the various tribes of the great island, make him a foremost authority on all matters connected with their part of the Malay archipelago. To one of the several intelligent natives instructed in preparing birds I am indebted in great part for the present collection, which I trust will be found to contain the great majority of birds of ‘Labūan and its dependencies.’ I may add that I can vouch for the locality of *every* bird, as, with but one or two exceptions from trustworthy hands, they have all been shot by my Kadyan boy ‘Būak’ (who is retained in my house), or by myself, or by residents on the coast. At least fifty species have been obtained in the grounds of Government House, which is prettily situated in park-like land, dotted with forest, about one hundred and fifty acres in extent.

“The remaining birds in the collection, not specially included in the Labūan series, come from the opposite coast. Some are from the neighbourhood of Borneo, others from the little Kadhyan settlement of Lumbīdan (whither I despatched my boy Būak for a month, after purchasing some birds from natives), on the north-west coast, and

about thirty miles above the mouth of the Brunei river. One or two may come from intermediate localities, such as the 'Lawas' and 'Kalias' rivers; they will all be carefully distinguished as to locality. My time is not sufficiently at my own disposal to permit me to record many of those valuable observations so useful to science; and I am conscious of many painful deficiencies, which can scarcely be excused even in a mere outdoor collector.

"I believe, however, that although many of the birds have been sent home from time to time by former collectors, the Labuan birds were not always distinguished from those from the mainland of Borneo—also that Hawks and Owls were not often obtained before by native collectors, who are generally dependent for their specimens on the *sumpitan* or blow-pipe, which is insufficient for large game.

"The Snipe, Plover, and Waders seem to arrive about August and to leave about the beginning of March, though I suspect that a few of them remain all the year, as I have seen them in April. The Asiatic Golden Plover on their first arrival have remains of their black summer dress; but they soon lose it; I observed none in that plumage after September. Curlew or Whimbrel appear to hang about all the year round.

"The Pigeons are numerous and of varied kinds; and on some of these I append a few notes; but I was unable through illness to carry the latter on beyond September."

Lastly, on the recommendation of my kind friend Dr. Sclater, a large and important collection has been placed in my hands for description by Professor Rolleston. This collection was formed by Mr. W. H. Treacher, Acting-Governor of Labuan, and by him presented to the Oxford Museum. In the splendid series of birds sent by Mr. Treacher are many interesting additions to the avifauna of Borneo, some of the most striking of which, however, came from the mainland—that is to say, the province of Lumbidan. The collector has succeeded, however, in adding more than one species to the list of Labuan birds. Accompanying the catalogue of native names, which form a prominent feature in Mr. Treacher's collection, was a glossary, which I herewith transcribe. Too much reliance, perhaps, must not be placed on the names given by natives of any country, though it is only fair to add that those given by Mr. Treacher accord in nearly every instance with those furnished by Mr. Motley and Mr. Low; nor should I have made the above remark but for the fact that different names are sometimes given to the same bird when procured on the mainland and on Labuan itself.

The following is Mr. Treacher's glossary:—

Ayan	Fowl.
Anic.	White Ant.
Api	Find.
Biru.	Blue.
Burpalang	Particoloured.

Bulan	Moon.
Badan	Body.
Babat Mayat	To tie a corporal (Mayat) with strips of white cotton cloth, according to island custom.
Bras	Rice.
Bodoh	Foolish.
Darak	Blood.
Darat	Inland.
Etck	A Duck.
Hijan or yön	Green.
Hutau	Jungle.
Hujan	Rain.
Jambul	A crest.
Kuchik	Small ; little.
Kuning	Yellow.
Karampok	A knife with a curved blade, which somewhat resembles the feathers of a Bulwer's Pheasant (Karampaki).
Kaug Kaug	To straddle ; to open the legs.
Lahir	The neck.
Lalang	The common species of long grass.
Landack	A porcupine.
Merah	Red.
Malagoondi	The name of a tree.
Pulita	A lamp.
Pirang	Brown.
Panggit	Call.
Romba	Thick forest.
Sunat	To stray ; to miss the way.
Sungai	River.
Siue	To whistle.
Tanah	Earth ; ground.
Trop	To blow.
Umbun	Dew.

“The natives name many birds from a fancied interpretation of their notes, as ‘whip-poor-will’ with us, *e. g.* the ‘Suip api’ or ‘Blow the fire’ is supposed to call out Antit! Antit! Suip api! (blow the fire), Ambit prick! (take the pot), Jarang nasi! (cook the rice), Lapat anak! (the child is hungry).”

The nomenclature adopted in the present paper is principally that of Count Salvadori's ‘Uccelli di Borneo,’ whose pages have been consulted at every turn of its preparation.

Order ACCIPITRES.

Suborder FALCONES.

Family FALCONIDÆ.

Subfamily ACCIPITRINÆ.

1. *CIRCUS SPILONOTUS*, Kaup.

Circus spilonotus, Sharpe, Cat. B. i. p. 58; id. Ibis, 1877, p. 2.

A new species for Labuan, where Mr. Ussher obtained an immature male in September 1876 and a fine adult male in January 1877. This Harrier was first introduced to the notice of naturalists as a Bornean bird by Mr. Alfred Everett (*cf.* Sharpe, Ibis, 1876, p. 30). Governor Ussher has also sent it from Brunei, as will be seen by the list of birds published by me in the 'Ibis' for the present year. Mr. Treacher sent a pair of young birds from Labuan, but without indication of the native name beyond the word "Alang," which means "Hawk."

Subfamily BUTEONINÆ.

2. *BUTASTUR INDICUS* (Gm.).

Butastur indicus, Sharpe, Cat. B. i. p. 297 (1874).

Poliornis indica, Salvad. *t. c.* p. 9.

Included in his work by Count Salvadori, with a query, no specimen having been sent from Borneo up to the time he wrote. Governor Ussher was therefore the first discoverer of the species in the Bornean avifauna. Five specimens were shot by him in different plumage in September and October 1876. Mr. Treacher also sends five specimens, and gives the native name as "Alang alap alap." Four of them are fine adult birds; and one is young; the latter, in addition to the mottled plumage and streaked breast, has five dark brown bands on the tail, much narrower than in the adult. One of Mr. Treacher's skins (the young bird) had the same native name "Alang juali" as the Peregrine Falcon, showing apparently that the natives have a different name for the young bird, or else that the collector mistook it for the young of the Peregrine.

Subfamily AQUILINÆ.

3 *SPIZAËTUS LIMNAËTUS* (Horsf.).

Spizaëtus limnaëtus, Sharpe, *t. c.* p. 272; Salvad. *t. c.* p. 15.

"Not uncommon, but extremely shy and difficult of approach; it is a great foe to poultry, and also feeds on shell-fish" (*H. T. U.*).

Mr. Low sends a nestling, nearly full-grown, which is black all over, like the adult, of which three specimens are in Mr. Ussher's collection. This seems to show that I am wrong in considering the the *S. caligatus* of Raffles to be the young of *S. limnaëtus*, as I have put forward in my 'Catalogue of Birds' (*l. c.*); but in Mr. Treacher's collection was a young bird in the striped plumage (similar to *S. cirratus*), with five bands on the middle and seven on the outer feathers. Although I at present keep only one species of *Spizaëtus*

as inhabiting Labuan, it is quite possible that further observers may recognize more. The species are very little understood, as may be gathered from the recent researches of Capt. Legge into the Ceylonese *Spizaëti* (*cf.* Legge, B. Ceylon, pp. 51, 55).

The young bird which Mr. Low forwarded was obtained from the egg, which he opened by cutting the shell in two halves and extracting the small occupant, who lived with him to a good size. He tells me that this Eagle builds on very high trees, and only lays one egg. Two nests which he observed had only one egg in each. That sent on the present occasion was taken in January 1875; it is white, with a few stains of ochraceous brown; axis 2·8, diam. 2·2.

4. HALIAËTUS LEUCOGASTER (Gm.)

Haliaëtus leucogaster, Sharpe, Cat. B. i. p. 307.

Cuncuma leucogaster, Salvad. *t. c.* p. 5.

A young bird was in Governor Ussher's collection from Brunei; and he has since sent an adult bird shot by his boy Buak in Labuan. Mr. Treacher's collection also contained a fine adult bird, with the native name "Alang piak."

5. HALIASTUR INTERMEDIUS, Gurney.

Haliastur intermedius, Sharpe, Cat. B. i. p. 314.

H. indus, Salvad. *t. c.* p. 12.

A young and an old bird from Governor Ussher, the latter shot on the Kina Bauua river in April 1877. Mr. Treacher sends an old bird (No. 46) with the native name "Alang merah," and a young one (No. 27) simply marked "Alang" and apparently not recognized by the collector as the immature bird of the present species. Mr. Low sends an egg of this species taken from a nest in a lofty tree in December 1873; it is dull white; axis 1·95 inch, diam. 1·4.

Subfamily FALCONINÆ.

6. FALCO PEREGRINUS, Tunst.

Falco communis, Gm., Sharpe, Cat. B. i. p. 376; Salvad. *t. c.* p. 1.

A fine adult bird, of the true *F. peregrinus* type, procured by Mr. Treacher, according to whom it is called "Alang juali." The species has only been obtained before in Borneo by Motley at Banjermassing.

7. CERCHNEIS TINNUNCULUS (L.).

Cerchneis tinnunculus, Sharpe, Cat. B. i. p. 425.

The only Kestrel yet recorded from Borneo is *Cerchneis moluccensis*, which is said to have been collected by Schwaner (*cf.* Salvad. Ucc. Born. p. 3). Governor Ussher procured a specimen, which, however, I believe to be the dark form of European Kestrel, known to ornithologists as *Cerchneis japonicus*. This opinion is confirmed by a second example of a Kestrel obtained by Mr. Treacher in Labuan, evidently of the same species as the one shot by Governor Ussher, and apparently a young male of *C. japonicus*, with the basal half of the tail commencing to get blue.

Suborder PANDIONES.

8. PANDION LEUCOCEPHALUS, Gould.

Pandion leucocephalus, Sharpe, Cat. B. i. p. 451.

Pandion haliaëtus (L.), Salvad. t. c. p. 7.

An adult specimen (No. 44) sent by Mr. Treacher, who gives the native name as "Alang piak"—the same, it will be observed, as that applied to *Haliaëtus leucogaster*. The species was procured at Sarāwak by Doria and Beccari, but has not been previously met with by the English collectors in N.W. Borneo.

Suborder STRIGES.

Family STRIGIDÆ.

9. KETUPA JAVANENSIS, Less.

Ketupa javanensis, Salvad. t. c. p. 20; Sharpe, Cat. B. ii. p. 8.

Two fine specimens, one dated December 1876, were sent by Governor Ussher. Mr. Treacher sends three adult birds, with the native name "Bugang."

10. PHODILUS BADIUS (Horsf.).

Phodilus badius, Motl. & Dillw. t. c. p. 8; Salvad. t. c. p. 22.

One specimen was sent by Mr. Low. It has already been recorded as a Labuan bird by Messrs. Motley and Dillwyn; indeed Mr. Motley speaks of it as being rarely seen, but not uncommon in the island. This appears somewhat strange when we consider the diligent efforts of Governor Ussher and Mr. Treacher to exhaust the avifauna of Labuan, and yet neither of them ever procured a specimen. It may, therefore, be migratory, and only plentiful at certain seasons of the year. Native name "Burong hantoo" (*Motley*).

11. NINOX SCUTULATA (Raffles).

Ninox scutulata, Sharpe, Cat. B. ii. p. 156.

Ninox borneensis, Bp., Salvad. t. c. p. 18; Sharpe, P. Z. S. 1875, p. 99.

Of this bird I have now examined a large series sent by Mr. Low, Governor Ussher, and Mr. Treacher, and I have very little to add to the remarks which I published in the 'Catalogue of Birds.' The characters which I there supposed might distinguish the Labuan bird as a race seem to me to be insufficient to warrant this conclusion. The uniform first primary appears to be a matter of age; and the number of caudal bars probably depends upon the same cause. In Mr. Treacher's series the majority of the specimens have five tail-bars, but one has only four. Native name "Pungok" (*Treacher*).

Two specimens from Labuan were in Mr. Low's collection; one of them a dark-coloured bird with four bands on the tail, and obsolete traces of fulvous bars on the inner web of the first primary. This belongs to the usual dark Labuan form of this *Ninox*; and it breeds in the island, Mr. Low having obtained two eggs with this identical specimen. The latter are very small for the size of the

bird, pure white, and measuring—length 0·95 inch, in diameter 0·8. The second specimen is much paler, and agrees best with the Sarawak bird described in my 'Catalogue' (p. 164); but it has five bars on the tail. These differences in coloration may be sexual, as the last named bird has a longer wing than the preceding one. Governor Ussher sent several specimens, which bear out the preceding remarks. He says it is tolerably common in Labuan.

12. NINOX JAPONICA (T. & S.).

Ninox japonicus, Wald. Tr. Z. S. viii. p. 40.

Mr. Burbidge during his stay in Labuan procured a specimen of the large *Ninox* of China and Japan, which seems to migrate to the Malayan archipelago, where it has been called *Athene florensis* by Mr. Wallace. In the 'Catalogue of Birds' I have given a number of measurements showing that the Chinese bird is as a rule very much larger than the ordinary *Ninox scutulata*, and that from its wide-extending range it is apparently a migratory bird. Its wing is never less than eight inches, and often exceeds nine, the largest specimen hitherto examined by me having been Mr. Wallace's type of *A. florensis*, which had the wing 9·1 inches in length. Mr. Burbidge's specimen exceeds these dimensions, having a wing of 9·6 inches. In view, therefore, of the constantly larger size attained by these birds, I prefer to record the specimen under a different heading from *Ninox scutulata*, to draw attention more positively to the occurrence in Borneo of this larger species or race.

Order PSITTACI.

13. PALÆORNIS LONGICAUDA (Bodd.).

Palæornis longicauda, Salvad. t. c. p. 22.

P. malaccensis, Vig. ; Motl. & Dillw. t. c. p. 26.

Native name "Beian" (*Treacher*).

Governor Ussher writes:—"About April this Perroquet appears to congregate in large numbers, especially the males, uttering loud cries. They then separate, probably for breeding-purposes. The males are extremely handsome and swift of flight."

14. LORICULUS GALGULUS (L.).

Loriculus galgulus, Salvad. t. c. p. 26.

Psittaculus galgulus (L.), Motl. & Dillw. t. c. p. 27.

A peculiarly coloured specimen from Labuan was in Mr. Low's collection. It had the whole of the wing mottled with yellow, all the feathers being tipped with this colour. This is probably a variety, as the bird does not appear to be immature, having a distinct patch of bright blue on the crown and the red patch on the lower back well developed. Governor Ussher sends a pair, and adds, "It does not seem to thrive well in confinement." It is also included in Mr. Treacher's collection with the name "Peripas." Mr. Low has forwarded three eggs of this small Parrot or "Love-bird." They

are dull white, stained a good deal with brown. Two of them are rounded in shape, axis 0·7 inch, diam. 0·6–0·65; the third is a little more oval, measuring, axis 0·7, diam. 0·55.

a. *Harpactes duvauceli*, (Temm.), Sharpe, P. Z. S. 1875, p. 102.

b. *Harpactes diardi* (Temm.), Sharpe, *t. c.* p. 102.

To be expunged from the list of Labuan birds.

Family CAPITONIDÆ.

15. *MEGALÆMA VERSICOLOR* (Raffl.).

Megalæma versicolor, Motl. & Dillw. *t. c.* p. 28.

Chotorea versicolor, Salvad. *t. c.* p. 33.

One specimen is mentioned as having been seen on the island by Mr. Motley; and Mr. Low sent an example which he told me had been shot on Labuan.

Order PICARLÆ.

Family PICIDÆ.

16. *XYLOLEPES VALIDUS* (Temm.).

Xylolepes validus, Salvad. *t. c.* p. 43.

In Governor Ussher's second collection.

17. *ALOPHONERPES PULVERULENTUS* (Temm.).

Alophonerpes pulverulentus, Salvad. *t. c.* p. 51.

One specimen, shot in January 1877 by Governor Ussher. Mr. Treacher also sends one specimen.

18. *THRIPONAX JAVENSIS* (Horsf.).

Thriponax javensis, Salvad. *t. c.* p. 53.

Hemilophus leucogaster (Temm.), Motl. & Dillw. p. 29.

In the collections of both Governor Ussher and Mr. Treacher. According to the latter it is called "Batatok turkubuk." The Governor says that it is "rather common, and is generally betrayed by the loud noise made by his powerful bill, when searching the trees for food."

19. *TIGA JAVANENSIS* (Ljungh.).

Tiga javanensis, Salvad. *t. c.* p. 54.

"Not uncommon; habits similar to those of *Thriponax javensis*" (Ussher). Native name "Ouit souit" (Treacher).

An egg of this species is sent by Mr. Low. It is pure white, and measures—axis 0·95 inch, diam. 0·7.

20. *YUNGIPICUS FUSCO-ALBIDUS*, Salvad. *t. c.* p. 42.

Y. sondaicus (Wall.), Sharpe, P. Z. S. 1875, p. 102.

Lord Tweeddale has shown (Ibis, 1877, p. 290) that the name *fusco-albidus* should be employed for this species. Governor Ussher

observes, "Commonly to be seen twisting and climbing up tree-stems." Native name, according to Mr. Treacher "Burong anie."

Mr. Low procured four eggs of this species. They are pure white, and vary a little in shape, two of them being a little more rounded than the two others: axis 0·65–0·75 inch, diam. 0·55–0·58.

- c. *Callolophus puniceus*, (Horsf.). Sharpe, P. Z. S. 1875, p. 103.
- d. *Callolophus malaccensis* (Lath.), Sharpe, *t. c.* p. 103.
- e. *Graucopicooides rafflesi* (Vig.), Sharpe, *t. c.* p. 103.
- f. *Meiglyptes tristis*, (Horsf.), Sharpe, *t. c.* p. 103.
- g. *Meiglyptes tukki* (Less.), Sharpe, *t. c.* p. 103.
- h. *Micropternus badius* (Temm.), Sharpe, *t. c.* p. 103.
- i. *Sasia abnormis* (Temm.), Sharpe, *t. c.* p. 103.

All the above to be expunged from the Labuan list.

Family CUCULIDÆ.

21. CUCULUS HIMALAYANUS, Vig.

Cuculus himalayanus, Jerd. B. Ind. i. p. 323.

Governor Ussher shot a specimen of this Cuckoo, which forms an interesting addition to the avifauna of Borneo, on the Kina Banua river at the latter end of March. The specimen has been examined by Mr. Seebohm, who has recently studied the genus; and he pronounces it to be undoubtedly of this species.

22. HIEROCOCCYX STRENUUS (Gould).

Cuculus strenuus, Gould, B. Asia, pt. viii. (1856).

Mr. Treacher sends a specimen of an adult Cuckoo, which I have compared with the type in the British Museum, and which I believe to belong to the large Hawk Cuckoo described by Mr. Gould as *H. strenuus*, from the Philippine Islands. The question as to whether this species should be considered to be a distinct one, or whether it should be only reckoned a race of *H. sparverioides*, must be left to future observers who may have a larger series than I have had at their disposal.

The wing in Mr. Treacher's bird is 9·5 inches, measured in a straight line from carpal band to tip of longest primary; and the native name is given as "Wang kulit."

23. CHRYSOCOCCYX XANTHORHYNCHUS (Horsf.).

Chrysococcyx xanthorhynchus, Salvad. *t. c.* p. 62.

Mr. Low's last collection contained two specimens, shot in Labuan on the 24th of June, 1875. He informed me that the species was very rare in the island, and was unknown to the natives. It is probably only an occasional visitant, as neither Governor Ussher or Mr. Treacher have procured specimens.

24. *SURNICULUS LUGUBRIS* (Horsf.).

Surniculus lugubris, Salvad. *t. c.* p. 63.

Governor Ussher's collection contained a young and old bird shot in April 1877. The former was in very interesting plumage, being spotted with white all over the body.

25. *CACOMANTIS MERULINUS* (Scop.).

Cacomantis merulinus, Salvad. *t. c.* p. 64.

Governor Ussher sends specimens with the following note:—
“Rare in Labuan, appears about July and August. Habits and flight, as well as note, resemble those of the Golden Cuckoo of West Africa.”

26. *EUDYNAMIS MALAYANA*, Cab. et Hein.

Eudynamis malayana, Salvad. *t. c.* p. 68.

Eudynamis orientalis (L.), Motl. & Dillw. *t. c.* p. 55.

A pair of birds, killed by Governor Ussher in September 1876. Mr. Treacher sends three specimens—one male, one female and a young bird in changing plumage. No native name is given.

27. *CENTROPUS JAVANENSIS* (Dum.).

Centropus javanensis, Salvad. *t. c.* p. 76.

Sent by Mr. Low, Governor Ussher, and Mr. Treacher. The latter gives the native name as “Terakok.”

Mr. Low forwarded an egg along with the old bird. The egg is white, without gloss, and measures—axis 1·25, diam. 0·95. There is not a great difference in size between the egg of this species and that of *C. eurycercus*.

28. *CENTROCOCYX EURYCERCUS* (Hay).

Centrococcyx eurycercus, Salvad. *t. c.* p. 78.

Centrococcyx philippensis (Horsf.), Motl. and Dillw. *t. c.* p. 54.

Both Governor Ussher and Mr. Treacher send a good series of this Lark-heeled Cuckoo, which is called “Bubut.” Mr. Low obtained the eggs, which are dull white, and are rather rounded in shape; nevertheless they vary somewhat in form, the axis ranging from 1·05 to 1·25 inch, and the diameter from 0·95 to 1·05 inch. Mr. Low writes to me that these eggs were taken in Labuan in May 1873, the nest being loosely built near the ground in thick undergrowth. Governor Ussher states that the habits are similar to those of the Lark-heeled Cuckoos of Africa.

k. *Rhopodytes erythrognathus* (Hartl.), Sharpe, P. Z. S. 1875, p. 104.

l. *Rhinortha chlorophæa* (Raffl.), Sharpe, *t. c.* p. 104.

m. *Poliococcyx sumatranus* (Raffl.), Sharpe, *t. c.* p. 104.

To be expunged from the Labuan list.

Family BUCEROTIDÆ.

29. ANTHRACOCEROS CONVEXUS (Temm.).

Buceros convexus, Motl. & Dillw. *t. c.* p. 53.

Hydrocissa convexa, Salvad. *t. c.* p. 80.

Native name "Licap" (*Treachers*). "Shot in jungle near Government House. This bird is common, but very shy. It is found in Daat, Labuan, and Kurāman, and probably in Pappan" (*Ussher*). Mr. Low sends three eggs of this Hornbill; and he says that two is the number of the eggs laid, and that the female is shut up by the male in a tree; colour white, the texture rather coarse; axis 1·95-2·1 inches, diam. 1·25-1·4.

Family UPUPIDÆ.

30. UPUPA EPOPS, L.

Upupa epops, Sharpe & Dresser, B. Eur. part vii. (1871).

Shot on Labuan by Mr. Treacher. His single specimen I have compared with Chinese and Central-Asian specimens; it can only be a rare visitant to Borneo, as it has never before been met with by any collector.

Family MEROPIDÆ.

31. MEROPS SUMATRANUS (Raffl.).

M. badius (Gm.), Motl. & Dillw. *t. c.* p. 14.

M. bicolor, Salvad. *t. c.* p. 90.

Governor Ussher writes:—"Common; seems to disappear about June or July, as none were noticed in August; very plentiful in April." Mr. Low sends the eggs; and according to his notes the birds nest in holes in sandy earth, laying five eggs; the latter are white and glossy, somewhat rounded: axis 0·95, diam. 0·85. The native name given by Mr. Low is "Burong tampakurow," but by Mr. Treacher it is rendered "Berkuru."

Family ALCEDINIDÆ.

32. ALCEDO BENGALENSIS, Gm.

Alcedo bengalensis, Salvad. *t. c.* p. 92.

Adult and young birds in Governor Ussher's collection.

33. ALCEDO MENINTING, Horsf.

Alcedo meninting, Salvad. *t. c.* p. 93.

Rather common, according to Governor Ussher. Mr. Treacher also sends specimens, and gives the native name as "Mantes yan" or "biru." Along with the female bird Mr. Low sends four eggs, which are glossy white and rather rounded; axis 0·8 in., diam. 0·65.

34. PELARGOPSIS LEUCOCEPHALA (Gm.).

Pelargopsis leucocephala, Salvad. *t. c.* p. 95.

Of this large Kingfisher, already recorded by Motley as a Labuan

bird, Mr. Low sent an old female caught on the nest with two eggs : the latter are large and white, axis 1·5, diam. 1·25. The native name is "Bukaka," according to Mr. Treacher. Governor Ussher's note is as follows :—"Decidedly not common. I observed one at Tanjong Kubong, but could not get near it. One was given to me by Mr. Low, the others being shot by Būak."

35. CEYX DILLWYNNI.

Ceyx dillwynni, Sharpe, Monogr. Alced. pl. 43, ; Salvad. t. c. p. 99.

C. tridactyla (nec Linn.), Motl. & Dillw. t. c. p. 13.

C. innominata, Salvad. t. c. p. 97.

C. sharpii, Salvad. t. c. p. 98.

Native name "Mantis merah" (*Treacher*).

This species was described by me from Labuan in the year 1868. It has since been plentifully forwarded from that island, and from other parts of Borneo, and from Sarawak. Count Salvadori described a second species in 1869, which he called *Ceyx sharpii*; and again in the same paper he described the red Three-toed Kingfisher (*C. rufidorsa*, Strickl.) as *C. innominata*. This latter name was not adopted by me in my 'Monograph,' as an examination of the type showed that it was the true *Ceyx rufidorsa* of Strickland. Since the time when Mr. Low sent his first collections, the British Museum has carefully secured all the specimens which have been offered to it of these little rufous *Ceyces*, whose plumages are so difficult to understand : there is therefore a very fine series of *C. dillwynni* now in the national collection. Added to the large number of skins in different plumages now sent by Mr. Treacher, I can affirm that the supposition propounded by me in 1875, that *Ceyx sharpii* is only a stage of plumage of *C. dillwynni*, is now placed beyond all doubt as a fact. Dr. Brüggemann, in his paper on Dr. Fischer's collections from Central Borneo (Abhandl. Nat. Ver. Bremen, v. p. 532), has also given his attention to the species, with a similar result. At the same time the plumages of the species are not easy to follow when the specimens are unsexed, as is unfortunately the case with the entire series in the Museum and in Mr. Treacher's collection. Dr. Fischer believes that there is no difference in the sexes, when the birds are adult, beyond a little greater brilliancy of colouring on the part of the male.

There is no difficulty in believing this to be true, as far as I can see ; and all the specimens with varying degrees of blue on the wing-coverts would be individuals in various stages of immaturity, while the red birds (*C. rufidorsa*), as far as Borneo is concerned, would be still more immature. I fancy that this determination of the progress to maturity is true of the female only ; for I think it probable that the latter sex takes longer to effect her progress to the adult plumage than does the male ; this is the case in other birds. That the males take less time to gain the full plumage is shown by four specimens in the Museum which have blackish bills (showing that they are young), and which yet have the colours of an adult male, excepting

that the blue on the coverts and scapulars is not so bright. It is obvious that the question can never be really settled till we have a number of carefully sexed and dated specimens; and meanwhile it may be remarked that great difficulties prevent the final acceptance of the explanation of the plumages above given; for if they are right the females must be in the proportion of at least three to one, judging from the collection now lying before me. Again, as to the fate of *C. rufidorsa* (of which there are several specimens in Mr. Treacher's collection agreeing exactly with another from Sumatra and another from Malacca), the perfect gradation, as far as the Bornean specimens are concerned, between *C. rufidorsa* and *C. dillwynni*, leaves no doubt of the identity of these two species; but then at present we have no evidence of the occurrence of *C. dillwynni* out of Borneo. *Ceyx rufidorsa* from Malacca and Sumatra may either be a plumage of *C. tridactyla* or *C. dillwynni*, or it may be a good and distinct bird. This seems to be hardly likely; and should it turn out that *C. dillwynni* is found in Malacca and that *C. rufidorsa* is really synonymous, then the former name must be suppressed.

Mr. Low procured three eggs of this species, along with a female bird in the plumage of *C. sharpii*, Salvad. As might be expected, these eggs are pure glossy white, axis 0·75, diam. 0·6.

36. HALCYON COROMANDA (Lath.).

Halcyon coromanda, Sharpe, Mongr. Alced. pl. 57.

Halcyon lilacina, Motl. & Dillw. t. c. p. 13.

Callihalcyon coromanda, Salvad. t. c. p. 101.

Not very common, according to Governor Ussher. Mr. Treacher says it is also called "Bukaka," like the other kinds of Kingfishers.

Mr. Low sends five eggs of this Kingfisher taken in Labuan in May 1873: they are pure white, axis 1·2–1·25 inches, diam. 1·15–1·2. He also adds the following note:—"Burong Sakak, the large red or crimson Kingfisher. The nest is said to be pendulous and invariably to be accompanied in the same mass by a bee which is peculiarly vicious, so that the nest can only be robbed after destroying the bees; in the case of these eggs they set fire to the whole, unluckily." The nesting of this Kingfisher in a bee's nest seems to be a point of some interest.

37. HALCYON PILEATA (Bodd.).

Halcyon pileata, Sharpe, Mongr. Alced. pl. 62.

Entomobia pileata, Salvad. t. c. p. 102.

Governor Ussher writes:—"In September 1876 I saw this Kingfisher in the swamp on the plain, and was near enough to distinguish the colours, but could not get a shot. There can be no doubt as to the identity of the bird, as I have since obtained specimens. It seems to leave in March or April."

The native name given by Mr. Treacher and Mr. Low is "Bukaka." The latter gentleman sends five eggs of this species from Labuan; they are pure white and rounded, axis 1·2, diam. 1·0.

38. HALCYON CHLORIS (Bodd.).

Halcyon chloris, Motl. & Dillw. *t. c.* p. 13; Sharpe, Monogr. Alced. pl. 87.

Sauropatis chloris, Salvad. *t. c.* p. 103.

Sent by Governor Ussher and Mr. Treacher. According to the latter gentleman, the native name is "Burong mukichic." Mr. Low renders the native name as "Burong bukikick." He sends three eggs of this species, taken on the 22nd of March; they are pure white, axis 1.15-1.2 inch, diam. 0.95-1.0 inch. Governor Ussher writes:—"Extremely common everywhere, both close to habitations and in the forest. It is a very noisy bird, and appears to give warning to others of the approach of danger. It has not seldom prevented me from getting a shot at the white Pigeon on Enoe."

39. EURYSTOMUS ORIENTALIS (L.).

Eurystomus orientalis, Salvad. *t. c.* p. 105.

Eurystomus pacificus, Motl. & Dillw. *t. c.* p. 11 (nec Lath.).

Governor Ussher writes:—"Very common among the dead forest-trees, but keeps at a great height, hawking after insects, and is consequently not very easy to obtain. It reminds me in its motions of *Eurystomus afer* and *E. gularis* of West Africa, though its flight is much more lofty and not so quick as in *E. gularis*."

The native name is given by Mr. Treacher as "Lakei."

Family CAPRIMULGIDÆ.

40. CAPRIMULGUS MACRURUS, Horsf.

Caprimulgus macrurus, Salvad. *t. c.* p. 117.

Caprimulgus salvadorii, Sharpe, P. Z. S. 1875, p. 99, pl. xx. fig. 1.

Native name "Kampa-kampa" (*Treacher*).

The distinguishing marks, principally consisting of the white edgings to the scapular feathers, which induced me to separate the Labuan bird as *Caprimulgus salvadorii*, seem to me, now that I have examined a large series, to be dependent on the age of the individual, and I feel compelled to suppress the species. I do this with great reluctance, as I had attached to it the name of Count Salvadori, with whose excellent work on the birds of Borneo commences quite a new era in the history of Malayan ornithology.

This Goatsucker is the common species in Labuan, and lays two eggs on the ground. The eggs sent by Mr. Low measure about 1.3 inch in length, diam. 0.9-0.95; they vary a good deal in shape and in markings, the ground-colour being creamy buff with faint purplish marblings and irregular lines; on some are seen overlying blotches and spots of brown. Governor Ussher says that it is "very common, pitching about the roads and pastures, making a loud and disagreeable noise at night, resembling the rapid strokes of a hammer on a hollow tree; it lays two eggs amongst dead leaves."

n. *Batrachostomus auritus* (Temm.), Sharpe, P. Z. S. 1875, p. 101.

o. *Batrachostomus javensis* (Horsf.), Sharpe, P. Z. S. 1875, p. 101.

To be expunged from the list of Labuan birds.

Family CYPSELIDÆ.

41. CYPSELUS SUBFURCATUS, Blyth.

Cypselus subfurcatus, Salvad. t. c. p. 118.

Sent by Governor Ussher with a note :—"Occasional ; resembles *C. affinis* of the Gold Coast, frequenting the edge of jungle." This Swift is new to Borneo, being only included in Count Salvadori's work as of probable occurrence in the island.

42. CYPSELUS INFUMATUS, Sclater.

Cypselus infumatus, Salvad. t. c. p. 119.

A specimen, shot by Governor Ussher on the Kina Banua river, April 1877. It agrees with the type from Banjermassing in the British Museum.

Fig. 1.

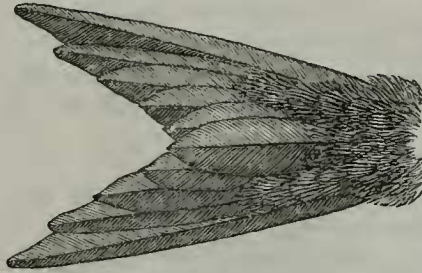
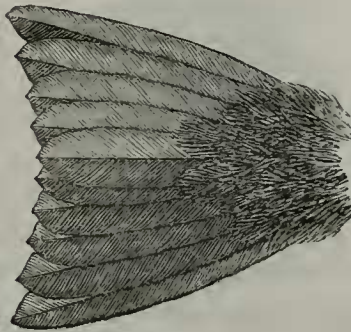
Tail of *Cypselus infumatus*.

Fig. 2.

Tail of *Cypselus lowi*.

43. CYPSELUS LOWI, sp. n.

C. similis *C. infumato*, sed multo major, et corpore subtus cineras-

cente et cauda vix furcata distinguendus. Long tota 5, alæ 5·3, caudæ 2, tarsi 0·4.

Governor Ussher writes :—“ Not uncommon, but difficult to obtain owing to its lofty flight and rapid gyrations. It is generally found near large trees and forests ; and although seen during the day-time, its favourite time for seeking its food seems to be towards sunset and in the twilight.” (*H. T. U.*)

This is a very interesting species, and is a large form of *C. infumatus*, which, however, is easily distinguished by its smaller size (wing 4·6 inches). It is ashy grey underneath instead of ashy brown, and is recognizable at a glance by its tail being only slightly forked. (See figures 1, 2, p. 333.)

44. DENDROCHELIDON LONGIPENNIS (Rafin.).

Dendrochelidon longipennis, Salvad. *t. c.* p. 122.

Macropteryx klecho, Motl. & Dillw. *t. c.* p. 9, pl. iii.

Native name “Layang-layang besar” (*Treacher*).

“Common, and in considerable numbers at times about Government House. Rapid and graceful in its motions ; when wounded, it erects its crest and bites and strikes out at its captor. The chestnut-cheeked examples are rarer than the others.” (*Ussher*).

45. DENDROCHELIDON COMATA (Temm.).

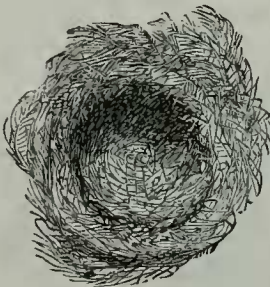
Dendrochelidon comata, Salvad. *t. c.* p. 123.

Macropteryx comatus, Motl. & Dillw. *t. c.* p. 10.

Specimens shot by Governor Ussher in May 1876.

Mr. Low sends a pair of birds with a little nest, about an inch and a quarter in diameter, in which are the remains of a broken white egg, concerning which he sends the following note:—“ This bird was brought to me in February 1876 by a Kadhyan, who said he had

Fig. 3.



Nest of *Dendrochelidon comata*, nat. size.

killed it on a low tree or stump, on the south west-side of the island, with a sumpitan or blow-pipe. When he picked it up, he said that the nest which was with it was lying close to the bird with one broken egg in it, and he believed that the bird had been carrying it about with her. This was the first specimen of this pretty Swift I ever obtained ; but I have since got three others.”

Mr. Hume's notes on the breeding of the Indian Crested Swift (*Dendrochelidon coronata*) confirm the small size of the nest in these birds; and he states that the nest could be covered with half-a-crown. The Labuan collector doubtless brought down both bird, nest, and egg in one common overthrow; and the bird falling upon the nest gave him the idea that it had been carrying it about with her.

46. *CHÆTURA CORACINA* (Schl.).

Chætura coracina, Salvad. *t. c.* p. 124.

The Marquis Doria states that this species was very common in all the parts of Borneo visited by him. Governor Ussher, however, says that it is extremely rare in the island of Labuan, whence he only sends two specimens, which are identical with a Malayan bird.

47. *CHÆTURA GIGANTEA*, Temm.

Chætura gigantea, Legge, B. of Ceylon, p. 314.

Hirundinapus giganteus (Hasselt), Salvad. *t. c.* p. 124.

Governor Ussher procured this species, and sends a note on its capture:—"My first specimen of this Swift, which appears to be very rare, was brought to a friend in June 1876, at the other side of the island, whilst still alive. It had been, so its finder stated, picked up on the road, having fallen before his feet; it had probably been fighting. I observed one much resembling it near the lines, but out of shot. I have since obtained a second, in April 1877."

This is another species which Count Salvadori prognosticated might be a visitor to Borneo, and in which he has been borne out by the researches of the English naturalists.

Captain Legge compared the Labuan birds and others from Malacca with those procured by himself in Ceylon, and could find no specific difference between them.

Order PASSERIFORMES.

Family CORVIDÆ.

48. *CORONE TENUIROSTRIS*, Moore.

Corone tenuirostris, Moore, Cat. B. Mus. E.I. Co. ii. p. 558.

Corvus enca, pt., Sharpe, Cat. B. Brit. Mus. iii. p. 43.

Sent by Mr. Low. I have already stated (*anteà*, p. 246), my belief in the distinctness of *C. tenuirostris* from *C. enca*.

49. *CISSA MINOR*, Cab.

Cissa minor, Sharpe, Cat. B. iii. p. 86.

One specimen sent by Mr. Treacher, but without any native name. Seeing that the species occurs for the first time in Labuan, it might be expected to be unknown to the natives. The bird sent agrees with the individuals of this race in the British Museum, and measures as follows: total length 12 inches, culmen 1·35, wing 5·2, tail 6, tarsus 1·6.

p. *Platylophus coronatus* (Raffl.), Sharpe, P. Z. S. 1875, p. 107.
Must be expunged from the Labuan list.

Family DICRURIDÆ.

50. DICRURUS ANNECTENS (Hodgs.).

Dicrurus annectens, Sharpe, Cat. B. iii. p. 231.

Shot by Governor Ussher in January 1877. Undistinguishable from Malaccan examples. The species has not been recorded from Borneo before, where, however, it cannot be very rare, as several specimens are sent by Governor Ussher, both from the mainland and from Labuan. Mr. Treacher also sends two specimens, but without any native name attached to them.

Family CAMPOPHAGIDÆ.

51. PERICROCOTUS CINEREUS, Lafr.

Pericrocotus cinereus, Sharpe, Ibis, 1877, p. 19.

“November, 1876.”

Several specimens of this interesting bird, which ranges as far as Borneo in its winter migration. It was first added to the Bornean avifauna by Mr. Everett, who procured it at Bintulu; it also occurred in Mr. Low's last collection from the north-west coast.

52. LALAGE TERAT (Bodd.).

Lalage terat, Salvad. t. c. p. 145; Sharpe, Cat. B. iv. p. 95.

Several specimens of both sexes in Governor Ussher's collection, as well as in Mr. Treacher's. At present the species has not been met with by the English collectors on the mainland, though Beccari and Doria obtained it at Sarawak. Mr. Treacher gives the native names of the males as “Panak panggit bujan.” Governor Ussher says it is common in the island.

The native name is given by Mr. Low as ‘Burung suip api.’ The latter gentleman sends two nests, which are small and of a shallow cup-shape: they are composed of dry bents interwoven with fragments of moss, spider's webs, and dead leaves. Each nest contains two eggs—the colour of those in the first being pale greenish white, thickly blotched and spotted all over with brown spots, amongst which are mingled here and there a few purplish markings and spots; axis 0·85, diam. 0·55. In the second nest the eggs are of a duller white, blotched and spotted as in those first described; axis 0·9, diam. 0·55.

Family MUSCICAPIDÆ.

53. POLIOMYIAS LUTEOLA (Pall.).

Poliomyias luteola, Sharpe, Cat. B. iv. p. 201.

Erythrosterma erythaca, Salvad. t. c. p. 127 (nec Blyth).

A fully adult male in Mr. Treacher's collection. From its having no native name attached to it, the species is probably a rare visitant.

54. *XANTHOPYGIA CYANOMELÆNA* (Temm.).

Xanthopygia cyanomelæna, Sharpe, Cat. B. Brit. Mus. iv. p. 251.
Cyanoptila cyanomelæna (Temm.), Swinh. P. Z. S. 1871, p. 380.
C. cyanomelanura, Blyth, Ibis, 1870, p. 164.

A series of this species was contained in Mr. Low's last collection; and Governor Ussher sent several specimens in different stages of plumage. This Flycatcher forms an addition to the Bornean avifauna.

55. *HYPOTHYMIS OCCIPITALIS* (Vig.).

Hypothymis occipitalis, Sharpe, Cat. B. iv. p. 275.
H. azurea (Bodd.), Salvad. t. c. p. 133.

Mr. Treacher sends three specimens. Native name "Burong umbun." This is also the name given by Mr. Low, who sends the eggs. The latter are creamy white, rather thickly clouded with bright rufous and with a few underlying spots of purple at the larger end. In one specimen, out of a nest of three, the spots are arranged in a ring round the thicker end. Governor Ussher says that the species is found in Labuan and Daat, but is not very common.

56. *RHIPIDURA JAVANICA* (Sparrrn.).

Rhipidura javanica, Sharpe, Cat. B. iv. p. 332.
Leucocerca javanica, Salvad. t. c. p. 135.

A series sent by Governor Ussher and Mr. Low; Mr. Treacher also contributes adults of both sexes and a young, with the native name "Langi langi."

The eggs sent by Mr. Low are creamy buff in colour, with a ring of confluent spots about the larger circumference of the egg; the ground-colour of this zone is browner and darker than the rest of the egg, the spots being very distinct and of three colours, ochre, brown, and bluish-grey. In some of the eggs the spots are very distinct; but in the others they are less clearly marked. The ground-colour of the egg also varies, being in some specimens white, when the zone of spots is also paler. The nests (of which Mr. Low has sent two or three specimens) are small but deep cup-shaped structures, attached to the upperside of a small branch, on which they stand upright: they are composed of slender bents of grass, the outside thickly interwoven with cobwebs, so as to give an effect of concealment to the little structure. One nest is marked by Mr. Low as having been taken on the 23rd of March 1873.

57. *SIPHIA BANYUMAS* (Horsf.).

Siphia banyumas, Sharpe, Cat. B. iv. p. 450.
Cyornis banyumas (Horsf.), Salvad. t. c. p. 130.

According to Governor Ussher, this species is only occasionally seen in Labuan. The native name given by Mr. Treacher is "Panggit buyan."

q. *Philentoma pyrrhoptera* (Temm.), Sharpe, P. Z. S. 1875, p. 107.

Must be expunged from the Labuan list

Family TURDIDÆ.

58. *Turdus pallens*, Pall.

Turdus pallens, Salvad. *t. c.* p. 256.

Turdus modestus, Eyton, Motl. and Dillw. *t. c.* p. 23.

Sent by Governor Ussher and Mr. Treacher; called, according to the latter, "Burong muncheat." Governor Ussher's two specimens were shot in December 1876.

59. *Monticola solitarius* (P. L. S. Müll.).

Monticola solitarius, Sharpe, *antèa*, p. 249.

Governor Ussher shot a specimen, with the blue colour beginning to spread over the red breast, in February 1877. It was previously only known as a Bornean bird from the single bird shot by Mr. Everett at Bintulu in November 1875, and recorded by me as *Monticola pandoo* (Ibis, 1877, p. 13). A second specimen was procured on Kina Balu by Mr. Burbidge (*vide antèa*, p. 249), who also possessed an example shot on Burong Island, close to Labuan.

60. *Phylloscopus xanthodryas* (Swinh.).

Phylloscopus xanthodryas, Seebohm, Ibis, 1877, p. 71.

One specimen forwarded in Mr. Treacher's collection, and identified as the above by Mr. Seebohm. Native name "Suit mulagandie."

61. *Locustella ochotensis* (Middendorff).

Locustella ochotensis, Seebohm, Ibis, 1879, p. 14.

In Mr. Low's last collection was a single specimen of this interesting bird; and my friend Mr. Seebohm tells me that it agrees with the types of Middendorff's species, which he saw not long ago in St. Petersburg. It is evident that Middendorff in his 'Sibirische Reise' figured only the young bird of *L. ochotensis*, and confused the species with the true *Locustella certhiola*.

62. *Acrocephalus orientalis* (T. & S.).

Acrocephalus orientalis, Salvad. *t. c.* p. 251.

Specimens were in Mr. Low's collection, which he assured me were from Labuan. Governor Ussher's and Mr. Treacher's birds of this species were from the mainland.

Fam. TIMELIIDÆ.

Subfam. BRACHYPODIINÆ.

63. *Irena crinigera*.

Irena criniger, Sharpe, Cat. B. iii. p. 267.

I. cyanea (Begbie), Salvad. *t. c.* p. 151.

I. puella, Motl. & Dillw. *t. c.* p. 23.

Governor Ussher gives the following note:—"By no means rare; generally to be found on the small species of *Ficus*, devouring the

berries; extremely noiseless in its flight, and flitting into the thick bush when disturbed; is generally seen from April to September." In the large series which I have now examined from Borneo, I have found the characters on which I separated the species remarkably constant. Native name "Lalu" (*Treacher*).

64. *PYCNONOTUS ANALIS* (Horsf.).

Pycnonotus analis, Salvad. *t. c.* p. 197.

A series sent by Mr. Treacher, who gives the native name as "Parak berjambul." It was also a frequent bird in the collections of Mr. Low and Governor Ussher.

65. *PYCNONOTUS PLUMOSUS*, Blyth.

Pycnonotus plumosus, Salvad. *t. c.* p. 198.

Sent by Mr. Treacher; and Governor Ussher says that it is very common.

66. *BRACHYPODIUS MELANOCEPHALUS* (Gm.).

Brachypodius melanocephalus, Salvad. *t. c.* p. 201.

Sent by all three collectors. Native name "Piong" (*Treacher*). As Lord Tweeddale has already pointed out (*Ibis*, 1877, p. 307), my *B. immaculatus* (*Ibis*, 1876, p. 39) is not really to be separated as a species. I had not, at the time I described the bird, examined a sufficient number from Borneo.

67. *IORA SCAPULARIS*, Horsf.

Iora scapularis, Salvad. *t. c.* p. 190.

A specimen sent by Mr. Treacher. Native name "Parak-merapok. Governor Ussher states that this species is common, uttering a pretty little note, and being frequently found near dwellings. Mr. Low sends a single egg of this species, and it is a very beautiful one: axis 0.8, diam. 0.65. The ground-colour is white, obscured, however, by reddish spots, which are much more thickly distributed towards the larger end, where the ground-colour becomes almost invisible. These reddish dots and blotches are interspersed by a few spots of purplish grey, which are more apparent towards the thin end of the egg.

68. *IORA VIRIDISSIMA*, Bp.

Iora viridissima, Salvad. *t. c.* p. 192.

Only sent by Governor Ussher. He writes:—"This bird is very scarce. It is the only example I have procured. My specimen was shot by Būak near the Kina Banua river."

Subfam. TIMELINÆ.

69. *CYANODERMA BICOLOR* (Blyth).

Cyanoderma bicolor, Sharpe, *Ibis*, 1876, p. 40.

C. erythropterum (Blyth), Salvad. *t. c.* p. 213.

Sent from Labuan by Governor Ussher and Mr. Treacher; according

to the latter gentleman it is called "Rungent." Governor Ussher says it is "occasional, and not common."

70. MIXORNIS BORNEENSIS, Bp.

Mixornis borneensis, Salvad. *t. c.* p. 215.

Appears to be rare, according to Governor Ussher, who has alone met with it.

71. SETARIA AFFINIS (Blyth).

Setaria affinis, Salvad. *t. c.* p. 231.

Only sent by Governor Ussher, who records it as "occasional."

72. COPSYCHUS AMÆNUS (Horsf.).

Copsychus amœnus, Salvad. *t. c.* p. 255.

"Very common everywhere; addicted to wooded situations; has a very sweet and full song, which, if it were more sustained, would be equal to that of a Nightingale or Thrush" (*Ussher*). Native name "Katajio" (*Treacher*). Mr. Low says that the nest of this Dial-bird is composed of "loose twigs in hollow palm-stems," and that five eggs are laid in a nest, one of which was procured by Mr. Low in January 1874. The same observer sends a series of eggs, which seem to be extremely variable, ranging from a pale greenish-white egg, mottled and blotched with brown, to an egg on which the dark brown blotches are so thickly distributed as almost to hide the greenish ground-colour of the egg altogether. Between these two extremes every possible intermediate colouring occurs; and the size also varies greatly, the axis ranging from 0·9–1·1 inch, and the diameter from 0·65–0·75 inch.

73. CITTOCINCLA STRICKLANDI.

Copsychus stricklandi, Motl. & Dillw. *t. c.* p. 20, pl. iv.

Kittocincla stricklandi, Salvad. *t. c.* p. 253.

A series sent by Governor Ussher and Mr. Treacher. Native name "Pulita sungie" (*Treacher*). Governor Ussher says that it is rarer than the *Copsychus*, and is generally found in deep forest. Mr. Low had a specimen from the mainland of Borneo; and its occurrence there has been confirmed by Mr. Treacher's collections, which contained examples.

r. *Macronyx ptilcsus*, J. & S., Sharpe, P. Z. S. 1875, p. 105.

s. *Brachypteryx malaccensis*, Hartl., Sharpe, *t. c.* p. 105.

t. *Timelia maculosa* (Temm.), Sharpe, *t. c.* p. 105.

u. *Phyllornis sonnerati* (J. & S.), Sharpe, *t. c.* p. 106.

v. *Phyllornis cyanopogon*, Temm., Sharpe, *t. c.* p. 106.

To be expunged from the Labuan list.

Subfam. CISTICOLINÆ.

74. PRINIA SUPERCILIARIS.

Prinia superciliaris, Salvad. *t. c.* p. 249.

A series of specimens sent by Governor Ussher and Mr. Low, the latter of whom forwarded the eggs. The last-named gentleman informs me that the native name is "Burong anchariak," that it forms its nest amongst grass-stems near the ground, and is said to have a very pretty song. The majority of the eggs sent by him were glossy brick-red in colour, some of them being lighter, marbled with deeper red, while others are creamy chocolate; axis 0.65, diam. 0.5.

75. ORTHOTOMUS RUFICEPS, Less.

Orthotomus ruficeps, Salvad. *t. c.* p. 248; Sharpe, *Ibis*, 1877, p. 114.

An adult bird sent by Governor Ussher.

76. ORTHOTOMUS CINERACEUS, Blyth.

Orthotomus cineraceus, Sharpe, *t. c.* p. 114.

Orthotomus sepium, Motl. & Dillw. *t. c.* p. 19.

"Not uncommon; is generally found in very thick jungle and prefers tall trees. I have never noticed it except in copses and wooded situations." (*Ussher*.)

Fam. LANIIDÆ.

77. LANIUS LUCIONENSIS, L.

Lanius lucionensis, Sharpe, *Ibis*, 1876, p. 43.

Several examples are sent by Governor Ussher from Labuan, as well as others from the opposite coast of Borneo. Mr. Treacher obtained an adult bird, and gives the native name as "Burong rangas."

78. HYLOTERPE GRISEOLA, Blyth, Salvad. *t. c.* p. 157.

Native name "Panggit hujan" (*Treacher*). Mr. Treacher sends one specimen; and the species was also in Governor Ussher's collection, but is believed to be rather rare by the last-named gentleman.

Family NECTARINIIDÆ.

79. CINNYRIS PECTORALIS (Horsf.).

Cinnyris pectoralis, Shelley, *Monogr. Cimnyridæ*, part. vi.

Nectarinia pectoralis, Motl. & Dillw. *t. c.* p. 15.

Cyrtostomus pectoralis, Salvad. *t. c.* p. 170.

Sent by Mr. Low, and also by Governor Ussher and Mr. Treacher, in some numbers. According to the latter observer, the native name is "Suit kuchik."

The large series of eggs which Mr. Low has procured shows immense variation in colours. There seem to be at least three types of coloration in the egg: the first has the ground-colour bluish, with

purple spots and blotches generally at the thicker end; this is the rarest type. The second has a greyish-blue ground almost entirely obscured with brown spots and blotches, with a few distinctly indicated spots of darker brown here and there; while the general aspect of the third type of coloration is brown, everywhere clouded with mottlings of darker brown and greenish brown. Between these different forms, however, there is every intervening link.

80. *CINNYRIS HASSELTII* (Temm.).

Cinnyris hasselti, Shelley, Monogr. Cinnyr. part iv.
Nectarophila hasselti, Salvad. t. c. p. 177.

Governor Ussher states that this species is very common at "Coal Point." Mr. Low sends an egg along with the old male and female bird. The egg is a peculiarly coloured one, being creamy white, with longitudinal streaks of light reddish brown or purplish grey extending nearly the whole length of the egg, and sometimes confluent so as to hide the ground-colour; axis 0.7 in., diam. 0.55 in.

81. *CALCOSTETHA INSIGNIS* (Jard.).

Calcostetha insignis, Shelley, Monogr. Cinnyridæ, part iv.; Salvad. t. c. p. 177.

A pair sent by Mr. Treacher with the native name "Suit tonjong." The species also occurred in the collections of Mr. Low and Governor Ussher.

82. *ÆTHOPYGA SIPARAJA* (Raffl.).

Æthopyga siparaja, Shelley, Monogr. Cinnyr. part ix.
A. eupogon, Salvad. t. c. p. 174.

Two sets, consisting of two and of six eggs respectively, are sent by Mr. Low. These are most beautiful, the ground-colour being of a pinky flesh-colour, deepening into richer rufous at the obtuse end, and sparingly spotted and scrawled with dark brown. The two eggs sent by themselves are more uniformly blotched with reddish, the spots being more sparingly distributed; axis 0.55 in., diam. 0.45. Governor Ussher says that this Sunbird is common in Labuan.

83. *ANTHREPTES MALACCENSIS* (Scop.).

Anthreptes malaccensis, Salvad. t. c. p. 178; Shelley, Monogr. Cinnyridæ, part vi.
Nectarinia javanica, Motl. & Dillw. t. c. p. 17.

A series sent by Governor Ussher and Mr. Treacher. The males have bright yellow breasts. Native name "Suit besar" (Treacher). Mr. Low sends several nests, and says that two eggs only are laid in each nest. The eggs are very variable, the general type being like that of a Bunting, dull white or purplish grey, spotted and scribbled all over with blackish pencillings. On some of the paler-coloured eggs these lines and dots are bolder and more distinct.

84. ANTHREPTES PHÆNICOTIS (Temm.).

Anthreptes phænicotis, Shelley, Monogr. Cinnyr. part. vii.

Chalcoparia cingalensis (Gm.), Salvad. t. c. p. 180.

Nectarinia cingalensis, Motl. & Dillw. t. c. p. 16.

Sent by Governor Ussher.

w. *Arachnothera chrysogenys* (Temm.), Sharpe, P. Z. S. 1875, p. 107.

To be expunged from the Labuan list.

Family DICEIDÆ.

85. PRIONOCHILUS EVERETTI, Sharpe, Ibis, 1877, p. 16. (Plate XXX. fig. 1.)

The single specimen sent by Governor Ussher agrees thoroughly with the type; and there is no doubt of the distinctness of this bird from *Prionochilus obsoletus*, of which a figure is also now given (Plate XXX. fig. 2).

86. DICÆUM TRIGONOSTIGMA (Scop.).

Dicæum trigonostigma, Salvad. t. c. p. 166.

Dicæum croceoventer, Motl. & Dillw. t. c. p. 17.

This bird is also recorded as common in Labuan by Governor Ussher. Mr. Low gives the native name as "Suit binalu," and sends a nest of the species with one egg. The latter is bluish white, with tiny brown specks distributed over its surface, with a few larger spots of darker brown, principally at the large end, but also somewhat scattered over the rest of the egg; axis 0.65, diam. 0.45. Mr. Treacher also sent a series of specimens, and gave the same native name as Mr. Low.

87. DICÆUM NIGRIMENTUM, Salvad. t. c. p. 165.

Dicæum coccineum, Motl. & Dillw. t. c. p. 19.

This species seems to be distinct from *D. coccineum*. It is said to be common in Labuan by Governor Ussher.

Family MOTACILLIDÆ.

88. BUDYTES VIRIDIS (Gm.).

Budytes viridis, Salvad. t. c. p. 260.

Motacilla cinereocapilla, Motl. & Dillw. t. c. p. 21.

Native name "Bras bras" (*Treacher*).

89. MOTACILLA MELANOPE, Pall.

Motacilla melanope, Dresser, B. Eur. pt. xli.

M. bistrigata, Salvad. t. c. p. 259.

"Very scarce," according to Governor Ussher.

The rarity of this species depends doubtless upon its being a migrant in Borneo; but it cannot be a common visitor, as Doria only obtained one example, and it has not been sent by Mr. Low in any

of the collections I have examined, nor did it occur in Mr. Treacher's boxes.

90. *ANTHUS GUSTAVI*, Swinhoe.

Mr. Treacher gives the name as "Bras bras katan."

Family FRINGILLIDÆ.

91. *PADDA ORYZIVORA* (L.).

Padda oryzivora, Salvad. *t. c.* p. 263.

Governor Ussher observes:—"This bird was introduced to the island by Mr. Low; it has thriven, and is now in prodigious numbers."

92. *MUNIA ATRICAPILLA* (V.).

Munia atricapilla, Salvad. *t. c.* p. 265.

Amadina sinensis, Motl. & Dillw. *t. c.* p. 25, pl. vi.

Several specimens sent by all three collectors. This species was introduced by Mr. Low, who forwards a number of eggs, which are dull white like those of the following species, from which they are not to be distinguished.

93. *MUNIA FUSCANS* (Cass.).

Munia fuscans, Salvad. *t. c.* p. 268.

Along with the eggs of this little Finch, Mr. Low sends a pair of the birds, which he calls the "Black Sparrow." He says:—"This bird, formerly the only one of the Sparrows in Labuan, is now rapidly disappearing before the Black-headed Brown Sparrow (*Munia atricapilla*) and the Java Sparrow, both introduced birds." The eggs are dull, lustreless, white; axis 0·6, diam. 0·45.

Family HIRUNDINIDÆ.

94. *HIRUNDO GUTTURALIS*, Scop.

Hirundo gutturalis, Salvad. *t. c.* p. 125.

Native name "Layang layang kuckie." This species is represented by a single adult specimen in Mr. Treacher's collection; and the native name is given on his authority. From the fact of its having the same vernacular title as the common Swallow of Labuan, *H. javanica*, it is evident that the natives do not recognize the difference between the two species; yet the latter is doubtless the resident Swallow, while the present species will prove in all probability to be only a passing migrant. This is the same bird which I called *Hirundo rustica*, L., in my paper on Dr. Steere's Philippine collection (Tr. Linn. Soc. new series, i. p. 328). It is, as Count Salvadori remarks, very doubtfully distinct from the Common Swallow of Europe, but is apparently smaller, and I have never seen an adult male with the rufous breast of *H. rustica*. This is the first time that I have seen the species in any collection from N.W. Borneo; but Dr. Beccari procured it in Sarawak.

95. *HIRUNDO JAVANICA*, Sparmm.*Hirundo javanica*, Salvad. *t. c.* p. 126.*H. pacifica*, Motl. & Dillw. *t. c.* p. 10.

Governor Ussher sends the following note :—"Is seen everywhere; affects the sea-shore, and even the open sea at times; builds about houses, but also in old trees; frequently perches on old stumps on the sea-beach; and is fond of swampy localities towards evening, when it flies very low." According to Mr. Treacher, the native name is "Layang layang kuckie."

Mr. Low sends a quantity of eggs taken in May 1873 in Labuan. He says that it also breeds in fissures of rocks. The eggs are white, covered with small reddish-brown and purple spots, chiefly near the thicker end; one of the eggs is very thickly clouded near the obtuse end with reddish and purple; axis 0·7–0·75, diam. 0·5–0·55. Some of the eggs are much less thickly spotted than others, the spots being quite tiny in many of them; in most the reddish shade predominates; but in a few the dots are nearly all pale purple, with some tiny specks of red.

Family ARTAMIDÆ.

96. *ARTAMUS LEUCORHYNUS* (L.).*Artamus leucorhynus*, Salvad. *t. c.* p. 140.*A. leucogaster* (Valenc.), Sharpe in Rowley's Orn. Misc. iii. p. 179.

Governor Ussher writes :—"Very common: frequently to be observed in considerable numbers towards evening, especially after rain, hawking after the insects rising from the damp earth, in company with Rollers and Swifts." Native name "Alap alap" (*Treacher*). Four eggs of this species are sent by Mr. Low, along with the skin of the old bird. They are creamy-white in colour, with spots of pale brown congregated towards the large end of the egg; there are a few spots and blotches of light purplish grey underlying the brown, and generally collected at the thicker end; the amount of spotting varies on each egg; axis 0·95, diam. 0·7.

x. *Cymbirhynchus macrorhynchus* (Gm.), Sharpe, P. Z. S. 1875, p. 107.

y. *Eurylæmus ochromelas*, Raffl., Sharpe, *t. c.* p. 107.

Both the above-named species must be expunged from the Labuan

Family STURNIDÆ.

97. *CALORNIS CHALYBEUS* (Horsf.).*Calornis chalybeus*, Salvad. *t. c.* p. 271.*Calornis panayensis*, Motl. & Dillw. *t. c.* p. 24.

Native name "Langkir" (*Treacher*). Governor Ussher's note is as follows :—"Perhaps the commonest bird in Labuan at this season (August, September, and October); and previous to May they roost in countless thousands in the trees near Government House. They

are very noisy, and are fond of associating with the Pigeons in the dove-cot, where I believe they also breed. They will nest occasionally under the eaves of houses; and one pair built its nest and reared its young this year in the verandah in a blind or screen which is kept rolled up, forming a hollow inside."

Two sets of eggs were procured by Mr. Low with the old birds. The first contained only a single egg, the latter being long in shape, of a light greenish blue, sparsely spotted with faint underlying spots of brown and larger spots and blotches of red, principally distributed at the obtuse end; axis 1.15, diam. 0.7. The second set consisted of three eggs not so elongated as the first, and somewhat more plentifully spotted with red as regards two out of the three; axis 1.05, diam. 0.75. The eggs were obtained in June 1873.

98. GRACULA JAVANENSIS (Osb.).

Gracula javanensis, Motl. & Dillw. *t. c.* p. 25; Salvad. *t. c.* p. 274.

According to Mr. Low, this bird is called by the natives "Burong tiong;" and the eggs are said to be very difficult to get. The two sent by him are pure white, and are large for the size of the bird; axis 1.3, diam. 1.15; they were obtained in May 1874.

Family PITTIDÆ.

99. PITTA MUELLERI (Bp.).

Pitta muelleri, Salvad. *t. c.* p. 240.

Sent by all three naturalists. Native name "Teong tanah," according to Mr. Treacher. Five eggs are sent by Mr. Low, along with the old female. Their ground-colour is creamy-white, rather thickly scribbled over with reddish-brown lines and spots, and plentifully varied with underlying spots of light purple; axis 0.95-1.0 in., diam. 0.8 in.

Order COLUMBÆ.

100. CHALCOPHAPS INDICA (L.).

Chalcophaps indica, Salvad. *t. c.* p. 299.

One specimen sent by Governor Ussher, with a note:—"♀ Dove: Labuan. Five of these were brought to me alive; but one night a cat got at them, and only left this female. The males were lavender-coloured, grey about the head and neck."

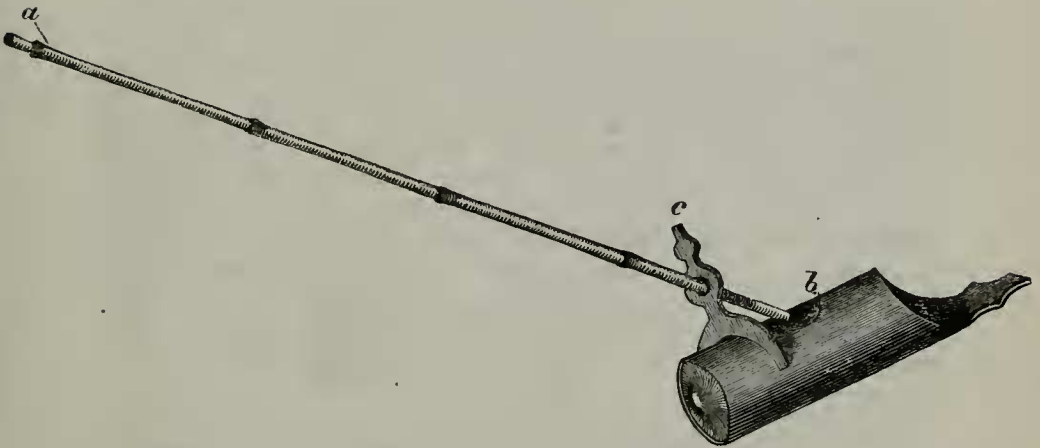
To Mr. Burbidge I am indebted for the following interesting notes and sketches:—

"Herewith I send you sketches and a short account of the 'call-wigwams' used by the Kadyans (a pastoral race who live in N.W. Borneo) in order to capture the small green 'Puni' Pigeon.

"The call is formed of two pieces of bamboo (*a*), a slender tube (*b*), a short piece 3"-4" in diameter, and a connecting piece of wood (*c*).

At *b* is a hole similar to the embouchure of a flute; and the lower end of the blow-tube, *a*, is fitted to this in such a manner that, on blowing at *a*, a soft, low, flute-like 'cooing' is easily producible; and this can be readily modulated so as to be heard either at a long distance or near at hand. The native, who has taken up his position in the forest or jungle where these little birds are found, blows very softly at first; but if there be no answering call from the birds he blows louder and louder, thus increasing the radius of sound. If there really be any Pigeons of this kind within hearing, they are sure to answer; and then the hunter blows softer and softer until they are enticed into the 'wigwam' of leafy branches which he has erected in order to conceal himself from sight. The door or entrance to

Fig. 4.



'Dakut' or call used by the Khadyan natives,

these 'wigwams' is partially closed by a screen of palm (*Nipa fruticans*) leaves. This is elevated a little (as shown in my sketch) to allow the Pigeons to enter, after which it is allowed to fall, portcullis-like, entirely, so as to close the entrance; and the bird is then easily secured. Above the entrance two holes are made, so that the hunter can look out without being seen. These huts are formed of a few poles or sticks, rudely thatched with twigs and palm-leaves, and vary from four to six feet in height.

"This Pigeon is migratory, and arrives in Labuan and on the opposite Bornean coast with the change of the monsoon, about April. Many hundreds are then caught by means of this 'dakut,' or 'bamboo call,' and are offered for sale by their captors for a cent or two each. They are also kept by the natives as domestic pets, along with young Hornbills, the 'Mina' bird or 'Grackle,' a small species of Parrakeet, and Java Sparrows."

101. TRERON VERNANS (L.).

Treron vernans, Motl. & Dillw. *t. c.* p. 30; Salvad. *t. c.* p. 286.

“Plentiful everywhere; feeds on fruits and berries” (*Ussher*).
Native name “Punie kurackow” (*Treacher*).

102. TRERON OLAX (Temm.).

Treron olux, Salvad. *t. c.* p. 289.

Governor Ussher writes:—“Not so common as *T. vernans*, but occasionally to be met with. It is of similar habits, but more retiring than the above-mentioned bird.” Native name “Punie suit” (*Treacher*).

103. CALÆNAS NICOBARICA.

Calænas nicobarica, Sharpe, P. Z. S. 1875, p. 110.

Governor Ussher observes, in a letter dated August 5th, 1877, “Būak has succeeded in establishing two additional birds for Labuan. One is the grey-and-white Eagle (*H. leucogaster*); and the other is the beautiful green-hackled Pigeon (*Calænas nicobarica*), two fine specimens of which he got on Pappan Island, a mile from the harbour. Low had two in confinement, but could tell nothing of them. Rajah Brooke had one alive in Sarawak. Two I saw from Saigon; and I sent you one from Bruncei; and now it is established in the Labuan list. I was sure that I had seen it in Enoe and Burong Islands; now it is a certainty.” Since the Governor’s return to England, Mr. Treacher has procured this bird on the island of Labuan itself, where I had heard of its occurrence also from Mr. Burbidge. The native name, according to Mr. Treacher, is “Jan junli.”

104. PTILOPUS JAMBU (Gm.).

Ptilopus jambu, Salvad. *t. c.* p. 289; Elliot, P. Z. S. 1878, p. 554.

Governor Ussher sends a specimen of a male. “This lovely Pigeon was shot in August of this year, 1876, near the Kina Banua river, towards the southern end of the island; have not observed it before, nor noticed it in Mr. Low’s collections. I know nothing of its habits, and did not observe it before August.”

105. CARPOPHAGA ÆNEA (L.).

Carpophaga ænea, Salvad. *t. c.* p. 290.

“Common in Labuan and its islands, but shy and difficult of approach. At certain seasons it feeds voraciously on the fruit of the many varieties of the *Ficus indicus* in these parts, and swallows the fruit whole: the latter is about as large as a sloe-berry; and I have found their crops full of them.” (*Ussher*.) Mr. Low sends a single egg, which is pure white; axis 1·7 in., diam. 1·25 in.

106. CARPOPHAGA BICOLOR (Scop.).

Carpophaga bicolor, Salvad. *t. c.* p. 292.

Carpophaga luctuosa, Motl. & Dillw. *t. c.* p. 31.

Governor Ussher observes:—“This lovely bird (the beauty of

which in life is faintly represented by the skinned specimens) has only been seen by me on the island of Enoe, about two miles and a half from Victoria, although a friend of mine appears to have seen it on the island of Daat, and it is said to occur in Labuan itself. It is generally in company with another Pigeon, and at times I have seen a dozen or twenty together, at others scarce one. The island of Enoe itself cannot exceed three acres in extent; but I have seen several kinds of Pigeons on its lofty trees. The feathers of this Pigeon, when freshly shot, have at their root a deep buff or golden tinge, which fades, like the pink shade on the breast of some Terns, after death. It feeds on fruits and berries." (*H. T. U.*)

Mr. Low's collection contained the egg of this Pigeon: it is large, pure white, axis 1·9 in., diam. 1·4 in. The native name is given by him as "Burong rawa." Mr. Treacher gives it as "Peagam rawa."

107. *SPILOPELIA TIGRINA* (Temm.).

Spilopelia tigrina, Salvad. *t. c.* p. 296.

Governor Ussher observes:—"This pretty bird, now plentiful in Labuan, was introduced to the Bornean coast a few years since by Mr. Low. It has thriven prodigiously, as it is rarely molested, except by the youngsters from the men-of-war who call here occasionally. It is always to be found about paths and by the road-side."

The eggs sent by Mr. Low are pure white; axis 1·05–1·15 in., diam. 0·8–0·85. They were taken in January 1873; and he gives the native name as "Burong terkukur."

Family MEGAPODIIDÆ.

108. *MEGAPODIUS CUMINGI*, Dillw.

Megapodius cumingi, Motl. & Dillw. *t. c.* p. 32; Salvad. *t. c.* p. 302.

Megapodius lowii, Sharpe, P. Z. S. 1875, p. 111.

Native name "Menambrun" (*Treacher*). Mr. Ussher sends the following note:—"Not uncommon. I have seen its nests on Kuraman, but they are to be seen also on Labuan and Daat. The mounds appear to be about four or five feet in height and about twelve feet in circumference, composed of earth and rubbish. The iris in the living bird is brown; the skin about the eye and cheeks pink or roseate."

The late Marquis of Tweeddale, in his paper on Mr. Everett's Cebu collections (P. Z. S. 1877, p. 766), has referred to my naming the Labuan Megapode after Mr. Low, and has pointed out an evident error which I made in describing it as new. I was misled by the opening sentence of Mr. Dillwyn's treatise (p. 32):—"Some specimens of these birds are in the British Museum, to which they were presented by Mr. Cuming, having been collected by that gentleman in the Philippine Islands; in Labuan they are not uncommon," &c.; as well as by his naming the species after Mr. Cuming. He writes, however, to Lord Tweeddale that the bird he really described came from Labuan, so there is an end of the question. The measurements also bear out the correctness of his statement.

Family PERDICIDÆ.

109. EXCALFACTORIA CHINENSIS (L.).

Excalfactoria chinensis, Salvad. *t. c.* p. 311.

Sent by Governor Ussher and Mr. Low. The former writes:—"Tolerably plentiful in open spaces in short thick grass: is met with up to May or beginning of June in little bebies; after that I observed them in pairs. They are of rapid flight, and are hard to flush a second time."

Mr. Low sends a number of eggs of this species. They vary from dark olive-brown with few black dots, to pale olive-brown where the black dots are more numerous. The eggs were taken by Mr. Low in January 1873. Native name "Burong puyu puyu." Axis 1·0 in., diam. 0·75 in.

Order GRALLÆ.

Family CHARADRIIDÆ.

110. CHARADRIUS FULVUS (Gm.).

Charadrius fulvus, Salvad. *t. c.* p. 312.

Charadrius virginicus, Motl. & Dillw. *t. c.* p. 57.

Native name "Pimping" (*Treacher*). Governor Ussher's specimens were obtained in October 1876.

111. ÆGIALITIS PERONII (Temm.).

Ægialitis peronii, Salvad. *t. c.* p. 315.

Charadrius alexandrinus, Motl. & Dillw. *t. c.* p. 57.

Governor Ussher writes:—"Not uncommon, but rather solitary. Generally seen alone on the beach, but sometimes in couples." Mr. Treacher sends several specimen with the usual name, "Pimping," which seems to be applied to all the small Waders.

The eggs of this little Plover were contained in Mr. Low's collection. They were two in number; axis 1·25-1·3 in., diam. 0·85 in. The colour is creamy buff, thickly scribbled over and blotched with blackish brown or black, more especially at the larger end; there are also numerous scribblings of pale purplish grey underlying the black markings.

112. ÆGIALITIS GEOFFROYI (Wagl.).

Ægialitis geoffroyi, Harting, *Ibis*, 1870, p. 378, pl. xi.; Salvad. *t. c.* p. 318.

Forwarded by Governor Ussher, with the note that it is occasionally seen on sand-spits and rocks in small flocks. First noticed in July.

113. ÆGIALITIS DUBIA (Scop.).

Ægialitis dubia, Salvad. Ucc. Born. p. 316.

Mr. Treacher procured a specimen of the Little Ringed Plover, which has been already recorded from Borneo; and Mr. Alfred Everett obtained it at Sibü; but it has not been met with in Labuan before.

Family GLAREOLIDÆ.

114. GLAREOLA ORIENTALIS, Leach.

Glareola orientalis, Salvad. *t. c.* p. 319.

An adult bird, in Governor Ussher's collection, killed December 1876. The native name, "Tara-tara," is given by Mr. Treacher, who also sends an adult bird.

Family HÆMATOPODIDÆ.

115. STREPSILAS INTERPRES (L.).

Strepsilas interpres, Salvad. *t. c.* p. 320.

Some young birds sent by Governor Ussher, who killed them in September 1876.

Family SCOLOPACIDÆ.

116. TRINGOIDES HYPOLEUCUS (L.).

Tringoides hypoleucus, Motl. & Dillw. *t. c.* p. 60; Salvad. *t. c.* p. 326.

Adult and young specimens sent by all three collectors. Native name "Pimping" (*Treacher*).

117. TOTANUS GLAREOLA (L.).

Totanus glareola, Salvad. *t. c.* p. 327.

Sent by Governor Ussher.

118. TOTANUS CALIDRIS (Gm.).

Totanus calidris, Salvad. *t. c.* p. 328.

Two specimens, in Governor Ussher's collection.

119. TOTANUS INCANUS (Gm.).

Actitis incanus, Finsch & Hartl. Faun. Centralpolyn. p. 182.

A single specimen, shot by Governor Ussher in December 1876.

120. NUMENIUS UROPYGIALIS, Gould.

Numenius phæopus, Salvad. *t. c.* p. 333.

Governor Ussher writes:—"Not very common, as a rule, about Labuan. I obtained three out of a flock at the mouth of the Kina Banua river about four miles from Victoria, but by a chance shot at about sixty yards. In the 'Plover season' they will associate with the latter, and are then more numerous."

121. GALLINAGO STENURA (Kuhl).

Gallinago stenura, Salvad. *t. c.* p. 334.

Native name "Pimping" according to Mr. Treacher.

122. GALLINAGO STENURA (Horsf.).

Gallinago stenura, Salvad. *t. c.* p. 334.

Shot by Governor Ussher in September 1876.

Family RALLIDÆ.

123. HYPOTÆNIDIA STRIATA (L.).

Hypotænidia striata, Salvad. *t. c.* p. 336.

Sent by all three collectors. Mr. Low has also procured the eggs, of which he has sent a series; the native name is "Burong patikan," according to him. The eggs are creamy-buff, with reddish dots and blotches and underlying paler spots of purplish grey; the style of marking is irregular, as sometimes the reddish and purple spots are found evenly over the surface of the egg, while in others the paler purplish spots predominate, and the reddish marks are distributed over the thicker end of the egg. Axis 1·3–1·4, diam. 1·0–1·1 in.

124. RALLINA FASCIATA (Raffl.).

Rallina fasciata, Salvad. *t. c.* p. 337.

In Governor Ussher's collection, as well as Mr. Treacher's; according to the latter gentleman the native name is "Patikan."

125. ERYTHRA PHÆNICURA (Penn.).

Erythra phænicura, Salvad. *t. c.* p. 340.

Gallinura phænicura, Motl. & Dillw. *t. c.* p. 60.

Native name "Karuak" (*Treacher*). "Common in swampy places, where it rises a first time, but it is difficult to flush again" (*Ussher*).

Several eggs are in Mr. Low's collection. They are of the usual Water-hen type, buff with reddish brown spots and small blotches distributed over the greater part of the egg, interspersed with dull purplish grey underlying spots. Two specimens are remarkable for the minuteness of the spots, which are principally collected at the larger end. Axis 1·5–1·6 in., diam. 1·05–1·15 in.

Family ARDEIDÆ.

126. ARDEA PURPUREA, L.

Ardea purpurea, Motl. & Dillw. *t. c.* p. 34.

Mr. Motley mentions his having met with the Purple Heron once in Labuan.

127. DEMIEGRETТА SACRA (Gm.).

Demiegretta sacra, Salvad. *t. c.* p. p. 346.

Ardea jugularis, Motl. & Dillw. *t. c.* p. 58.

Native name "Kanowie Kelam" (*Treacher*). "Generally found in freshwater swamps; not uncommon; I have observed several near Victoria" (*Ussher*).

128. HERODIAS NIGRIPES (Temm.).

Herodias nigripes, Salvad. *t. c.* p. 349.

Ardetta garzetta?, Motl. & Dillw. *t. c.* p. 35.

"Like *Butorides javanica*, moderately common on the sea-shore (*Ussher*).

129. BUTORIDES JAVANICA (Horsf.).

Butorides javanica, Salvad. *t. c.* p. 351.*Butorides macrorhyncha*, id. *t. c.* p. 353.*Ardea javanica*, Motl. & Dillw. *t. c.* p. 59.

Governor Ussher says that this species is "moderately common about rocks on the sea-shore." According to Mr. Treacher the native name is "Ulun tukugong."

130. ARDETTA CINNAMOMEA (Gm.).

Ardetta cinnamomea, Salvad. *t. c.* p. 354.

Two adult specimens, sent by Mr. Treacher.

Order ANSERES.

Family PELECANIDÆ.

131. TACHYPETES AQUILA (L.).

Tachypetes aquila, Sharpe, Report of the Transit-of-Venus Exped., Birds of Kerguelen, p. 51.

Mr. Treacher sends one specimen of the large Frigate-bird from Labuan with white head and white breast. Native name "Alang zambongau."

132. TACHYPETES MINOR (Gm.).

Tachypetes minor, Salvad. *t. c.* p. 364.

This species was included by Count Salvadori in his work as a bird likely to be met with in Borneo. An adult and a young specimen are sent by Mr. Treacher, with the same native name as the larger Frigate-bird. The red colour of the bill and the much shorter wings and toes induce me to believe that the smaller Frigate-bird is a good species, which I was inclined to doubt when I wrote my report on the Kerguelen birds.

133. PLOTUS MELANOGASTER (Penn.).

Plotus melanogaster, Salvad. *t. c.* p. 367.

Sent by Governor Ussher.

134. SULA PISCATRIX (L.).

Sula piscatrix, Salvad. *t. c.* p. 368.

Native name "Kulu kulu" (*Treacher*). Mr. Treacher's specimen is a young bird in brown plumage. The species is new to Borneo, though included by Count Salvadori as a bird likely to occur.

Family LARIDÆ.

Subfam. STERNINÆ.

135. STERNA BERGII, Licht.

Sterna bergii, Saunders, P. Z. S. 1876, p. 657.

Sterna cristata, Steph., Salvad. *t. c.* p. 376; Motl. & Dillw. *t. c.* p. 61.

Native name "Tara tara" (*Treacher*). Governor Ussher's col-
 PROC. ZOOL. SOC.—1879, No. XXIII.

lection contained this species as well as Mr. Treacher's; but it was already recorded from the locality by Motley and Dillwyn.

136. *STERNA MELANAUCHEN*, Temm.

Sterna melanauchen, Saunders, P. Z. S. 1876, p. 661.

Common in April, May, and June, according to Governor Ussher.

137. *ANOUS MELANOGENYS*, Gray.

Anous melanogenys, Sharpe, Report Trans. Venus Exped., Birds of Rodriguez, p. 10.

One adult specimen sent by Mr. Treacher. Native name "Tara tara." I have shown the specimen to Mr. Howard Saunders; and he confirms the identification.

3. On the Conformation of the Thoracic Extremity of the Trachea in the Class Aves.—Part I. The Gallinæ. By A. H. GARROD, M.A., F.R.S., Prosector to the Society.

[Received October 31, 1878.]

Inspection of the windpipes of several species of allied birds makes it evident that the bifurcation of that tube to form the bronchi is brought about in different ways in almost every case, by various alterations of greater or less degree in the proportionate development of the several rings and semirings entering into the composition of the organ. In the case of the non-osciniine Passeres, Johannes Müller has proved the great importance of the study of the "lower larynx" or syrinx in the determination of the affinities of the species. In the present communication it is my desire to continue his line of investigation to other families of the class, laying more stress on the cartilaginous structures, and less on the muscles moving them. Opportunities are specially in favour of my studying the Gallinæ at the present time; therefore this first fasciculus is an account of the bifurcating windpipe in those species of the Order which it has been my good fortune to examine.

By C. J. Temminck, in his valuable 'Histoire Naturelle Générale des Pigeons et des Gallinacés'¹, several of the windpipes of the Gallinæ are figured. These will be mentioned when the respective species are discussed.

It is in the Peafowl that the thoracic termination of the trachea is less complicated, as far as my experience goes, than in any other Gallinaceous bird; and the arrangement is so simple that it is not easy to imagine one much more so².

In the chick (a month old) of *Pavo spicifer* (figs. 1, 2) the antepenultimate tracheal ring is free, and agrees with those above it in that the interannular intervals are reduced to a minimum, at the same time

¹ Amsterdam, 2 vols., 1813 and 1815.

² Vide Temminck, *loc. cit.* pl. i. fig. 2.